Amendment to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for reacquiring a target in an automated video tracking system, the method comprising the steps of:

(a) selecting a desired target to be tracked;

(b) switching the automated video tracking system to an automatic track mode to initiate a tracking sequence to automatically track the selected desired target;

(c) during said automatic track mode, the automated video tracking system calculating a confidence value indicating a degree of correlation between the tracked video image of the target and a previously constructed computer model of said tracked target;

(d) during said automatic track mode, the automated video tracking system providing a warning to a user indicating that said automatic track mode is about to fail whenever said calculated confidence value falls below a pre-determined threshold confidence value;

(e) switching the automated video tracking system from an automatic mode to a manual mode if the automated video tracking system encounters a period of difficulty in tracking the tracked selected desired target;

(f) reacquiring of the selected desired target in manual mode in response to and during said period of difficulty; and

(g) switching the automated video tracking system to the automatic mode for automatic tracking of the reaquired selected desired target without initiating a new tracking sequence.

2. (Original) The method of claim 1, wherein step (a) comprises centering the desired target in a display of a scene including the desired target.

3. (Original) The method of claim 1, wherein step (b) comprises releasing control of an input device used to select the desired target.

4. (Original) The method of claim 1, wherein step (c) comprises controlling an input device used to select the desired target.

5. (Original) The method of claim 1, wherein step (d) comprises centering the desired target in a display of a scene including the desired target.

6. (Original) The method of claim 1, wherein step (e) comprises releasing control of an input device used to reacquire the desired target.

7. (Previously Cancelled)

8. (Currently Amended) An apparatus for reacquiring a target in an automated video tracking system, the apparatus comprising:

selecting means for selecting a desired target to be tracked;

mode switching means for switching the automated video tracking system to and from one of an automatic mode to initiate a tracking sequence after target selection to automatically track the selected desired target and a manual mode;

calculation means for calculating a confidence value indicating a degree of correlation between the video image of the tracked target and a previously constructed computer model of said tracked target;

warning means for providing a warning to a user indicating that said automatic track mode is about to fail whenever said calculated confidence value falls below a pre-determined threshold confidence value;

reacquiring means for reacquiring the desired target in manual mode ~~if~~ in response to and during the automated video tracking system ~~encounters~~ encountering a period of difficulty in tracking the desired target;

wherein after reacquiring the desired target the automated video tracking system is switched back to automatic mode without initiating a new tracking sequence.

9. (Original) The apparatus of claim 8, wherein the selecting means comprises an input device for centering the desired target in a display of a scene including the desired target.

10. (Original) The apparatus of claim 9, further comprising:

a video camera for capturing video image data of a scene including the desired target;

pan and tilt camera motors for controlling a pan and tilt, respectively of the video camera; and

a video display for displaying the video image data;

wherein the input device is a joystick operatively connected to the pan and tilt motors such that movement of the joystick controls the movement of the camera through the pan and tilt motors.

11. (Original) The apparatus of claim 8, wherein the mode selecting means comprises an input device where the automated video tracking system is switched to automatic mode by controlling an input device used to select the desired target and the automated video tracking system is switched to manual mode by releasing control of the input device.

12. (Original) The apparatus of claim 11, further comprising:

a video camera for capturing video image data of a scene including the desired target;

pan and tilt camera motors for controlling a pan and tilt, respectively of the video camera; and

a video display for displaying the video image data;

wherein the input device is a joystick operatively connected to the pan and tilt motors such that movement of the joystick controls the movement of the camera through the pan and tilt motors.

13. (Original) The apparatus of claim 8, wherein the reacquiring means comprises an input device for centering the desired target in a display of a scene including the desired target.

14. (Original) The apparatus of claim 13, further comprising:

a video camera for capturing video image data of a scene including the desired target;

pan and tilt camera motors for controlling a pan and tilt, respectively of the video camera; and

a video display for displaying the video image data;

wherein the input device is a joystick operatively connected to the pan and tilt motors such that movement of the joystick controls the movement of the camera through the pan and tilt motors.

15. (Currently Amended) An automated video tracking system for tracking and reacquiring a target, the automated video tracking system comprising:

a video camera for capturing video image data of a scene including a desired target;

pan and tilt camera motors for controlling a pan and tilt, respectively of the video camera;

a video display for displaying the video image data;

selecting means for selecting the desired target to be tracked;

mode switching means for switching the automated video tracking system to and from one of an automatic mode to initiate a tracking sequence after target selection to automatically track the selected desired target and a manual mode;

calculation means for calculating a confidence value indicating a degree of correlation between the video image of the tracked target and a previously constructed computer model of said tracked target;

warning means for providing a warning to a user indicating that said automatic track mode is about to fail whenever said calculated confidence value falls below a pre-determined threshold confidence value;

reacquiring means for reacquiring the desired target in manual mode ~~if the~~ in response to and during the automated video tracking system ~~encounters~~ encountering a period of difficulty in tracking the desired target;

wherein after reacquiring the desired target the automated video tracking system is switched back to automatic mode without initiating a new tracking sequence.

16. (Original) The automated video tracking system of claim 15, wherein the selecting means comprises an input device for centering the desired target in the display.

17. (Original) The automated video tracking system of claim 16, wherein the input device is a joystick operatively connected to the pan and tilt motors

such that movement of the joystick controls the movement of the camera through the pan and tilt motors.

18. (Original) The automated video tracking system of claim 15, wherein the mode selecting means comprises an input device where the automated video tracking system is switched to automatic mode by controlling an input device used to select the desired target and the automated video tracking system is switched to manual mode by releasing control of the input device.

19. (Original) The automated video tracking system of claim 18, wherein the input device is a joystick operatively connected to the pan and tilt motors such that movement of the joystick controls the movement of the camera through the pan and tilt motors.

20. (Original) The automated video tracking system of claim 15, wherein the reacquiring means comprises an input device for centering the desired target in a display of a scene including the desired target.

21. (Original) The automated video tracking system of claim 20, wherein the input device is a joystick operatively connected to the pan and tilt motors such that movement of the joystick controls the movement of the camera through the pan and tilt motors.